

Claim Listing:

1. (Currently amended) Multiple-stage drilling tool with chip groove for drilling different bit diameters as required, ~~which~~ wherein said diameters increase successively from stage to stage, **characterised by** a first bit stage (1-1) ~~designed as~~ being a core bit, and at least one second bit stage (1-2, 1-3) arranged above it in the form of a step, where a hole can be drilled by said the core bit leaving an uncut cylinder-shaped drilling core.

2. (Original) Arrangement in accordance with claim 1, **characterised in** that all the bit stages (1-1, 1-2, 1-3) have at least one common chip groove (S1, S2, S3, S4, S5).

3. (Currently amended) Arrangement in accordance with claim 2, **characterised in** that the said chip groove has an even or an arched base.

4. (Currently amended) Arrangement in accordance with claim 2, **characterised in** that the said chip groove has flanks of unequal height.

5. (Currently amended) Arrangement in accordance with claim 3, **characterised in** that the said chip groove has flanks of unequal height.

6. (Currently amended) Arrangement in accordance with claim 2, **characterised in** that a groove base is included and that said chip groove has at least one flank, and that at least one flank of the said chip groove is vertical or diagonal to said the groove base.

7. (Currently amended) Arrangement in accordance with claim 3, **characterised in** said chip groove has at least one flank and that a groove base is included, and that said

at least one flank of ~~the~~ said chip groove is vertical or diagonal to ~~the~~ said groove base.

8. (Currently amended) Arrangement in accordance with claim 4, **characterised** **in** that a groove base is included and that at least one flank of ~~the~~ said chip groove is vertical or diagonal to ~~the~~ said groove base.

9. (Currently amended) Arrangement in accordance with claim 2, **characterised** **in** that said chip groove has at least one flank and that said at least one groove flank is rounded.

10. (Currently amended) Arrangement in accordance with claim 3, **characterised** **in** that said chip groove has at least one flank and that said at least one groove flank is rounded.

11. (Original) Arrangement in accordance with claim 4, **characterised in** that at least one groove flank is rounded.

12. (Currently amended) Arrangement in accordance with claim 1, **characterised** **in** that all the bit stages (1-1, 1-2, 1-3) have at least one common chip groove includes a path and that said the path of ~~the~~ said chip groove on said the multiple-stage drilling tool, with ~~the~~ said increasing diameter of successive bit stages, runs in an imaginary cone with virtually the same groove depth.

13. (Currently amended) Arrangement in accordance with claim 2, **characterised** **in** that said chip groove includes a path and said the path of ~~the~~ said chip groove on said the multiple-stage drilling tool, with ~~the~~ said increasing diameter of successive bit stages,

runs in an imaginary cone with virtually the same groove depth.

14. (Currently amended) Arrangement in accordance with claim 3, **characterised** in that said chip groove includes a path and said ~~the path of the~~ said chip groove on said the multiple-stage drilling tool, with ~~the~~ said increasing diameter of successive bit stages, runs in an imaginary cone with virtually the same groove depth.

15. (Currently amended) Arrangement in accordance with claim 2, **characterised** in that ~~the course of the~~ said chip groove is spiral-shaped or straight.

16. (Currently amended) Arrangement in accordance with claim 3, **characterised** in that ~~the course of the~~ said chip groove is spiral-shaped or straight.

17. (Currently amended) Arrangement in accordance with claim 15, **characterised** in that ~~the~~ said chip groove of each bit stage is a spiral-groove segment smaller than a quarter of a full spiral turn.

18. (Currently amended) Arrangement in accordance with claim 16, **characterised** in that ~~the~~ said chip groove of each bit stage is a spiral-groove segment smaller than a quarter of a full spiral turn.

19. (Currently amended) Arrangement in accordance with claim 1, **characterised** in that ~~the~~ said core bit of the first bit stage has cutters running continuously from the inside to the outside.

20. (Currently amended) Arrangement in accordance with claim 1, **characterised** in that ~~the~~ said core bit of ~~the~~ said first bit stage (1-1) has inner cutters (Ci1) and outer

cutters (Ca1), said core bit includes heels, said ~~where the~~ outer cutters (Ca1) are located adjacent said ~~in the area close to the bore of the heels (F1 to F5) which are adjacent to the~~ and said chip groove grooves (S1 to S5), and ~~the~~ said core bit has U-shaped notches (E) ~~in the area close to the bore between two heels (F1 to F5), and an inner cutter (Ci1) is~~ assigned to each notch (E).

21. (Cancelled)

22. (Currently amended) Arrangement in accordance with claim 20, **characterised** **in that each of said outer cutters includes a clearance angle and that the said** clearance angle (fa1) of each of said ~~the outer cutter cutters of said~~ the core bit is ~~measures~~ between 6 and 15 degrees.

23. (Currently amended) Arrangement in accordance with claim 1, **characterised** **in that from the second bit stage (1-2, 1-3) onwards, each bit stage has at least one outer cutter (Ca2, Ca3) having a clearance angle (fa2) and said** ~~, whose~~ clearance angle (fa2) is less than or equal to 10 degrees.

24. (Currently amended) Arrangement in accordance with claim 23, **characterised** **in that the said** clearance angle (fa2) of all the outer cutters (Ca2) from the second bit stage (1-2) onwards are equal.

25. (Currently amended) Arrangement in accordance with claim 23, **characterised** **in that the said** outer cutter (Ca2) from the second bit stage (1-2) is at an angle (s3) of between 0 and 45 degrees to an imaginary horizontal plane.

26. (Currently amended) Arrangement in accordance with claim 20, **characterised** ~~in that, on the~~ said inner cutters include a clearance angle and that each said ~~core bit, the~~ clearance angle of the each said inner cutter is between 5 and 10 degrees.